

Gas-Chromatography (GC) – Mass Spectrometry (MS)

- Modified from [Kondo et al. \(2012\)](#)
- Sample preparation
 - Supernatant from cultivation (100 µl) was extracted with 900 µl of GC standard-grade acetone containing 0.1 % 2-butanol as an internal standard
 - 150 µl were used for GC-MS analysis
 - GC-MS analysis was realized with the following settings

AS 2000 (Autosampler)

sample volume 1 µl

Trace GC 2000

column

Stabilwax® (Crossbond Carbowax - PEG)
(30 m, 0.25 mm internal diameter, 0.25 µm film thickness)

Carries Gas

Helium (1 ml / min)

	rate [°C]	temp [°C]	hold time [minutes]
Oven temperature	initial	60	3.00
	ramp 1 10.0	100	0.00
	ramp 2 120.0	280	01.02.00
Injector temperature	250°C		
Split flow	20 ml / min		
MS transfer line	250°C		

Polaris Q (Ion trap MS)

Ion source 220°C

Mass range 25-100

start time 2,5 min

- With these settings we generated a calibration line with the following concentrations for further analysis and quantification of our samples.

- 0,5 % isobutanol
- 0,1 % isobutanol
- 0,05 % isobutanol
- 0,01 % isobutanol
- 0,001 % isobutanol

